

## ABSTRACT OF THE DISCLOSURE

A method of manufacturing a semiconductor device includes the steps of: forming an interlayer insulating film covering an upper side of a projected gate portion and a gap between the projected gate portions; 5 forming a contact hole reaching a first bottom portion introduced into a semiconductor substrate, from an upper surface of the interlayer insulating film through the gap between the projected gate portions; forming a second bottom portion having the semiconductor substrate exposed on the bottom face and the side face by forming a diffusion prevention film covering a side face of the first bottom portion and by etching further the bottom face of the first bottom portion; and forming a plug by filling the contact hole with 10 polysilicon having an impurity doped.